

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A failure sensing device of a vehicle control system including a control unit ~~(100, 110, 120)~~ generating a control target based on an operation request for controlling a driving state of a vehicle by manipulating a corresponding actuator using the generated control target, and a processing unit ~~(200, 300)~~ connected to said control unit ~~(100, 110, 120)~~ by a network, for generating and providing to said control unit ~~(100, 110, 120)~~ additional information to be used to modify said operation request or said control target, as necessary, at said control unit ~~(100, 110, 120)~~, wherein

said failure sensing device is provided to said control unit ~~(100, 110, 120)~~ with smaller control load, and includes

an output portion outputting information to said processing unit ~~(200, 300)~~ with greater control load,

a receiving portion receiving a response corresponding to said information from said processing unit ~~(200, 300)~~, and

a sensing portion sensing a failure in said processing unit ~~(200, 300)~~ based on said information and said response.

2. (Currently Amended) The failure sensing device according to claim 1, wherein said information is input data for calculation at said processing unit ~~(200, 300)~~, and said receiving portion receives as a response a calculation result of said input data substituted into a predetermined calculation formula at said processing unit ~~(200, 300)~~.

3. (Currently Amended) The failure sensing device according to claim 1, wherein

said control unit ~~(100, 110, 120)~~ further includes a diagnosing portion diagnosing a failure in itself.

4. (Currently Amended) The failure sensing device according to claim 1, wherein said control unit ~~(100, 110, 120)~~ is configured by multiplexed calculating units.

5. (Currently Amended) The failure sensing device according to claim 1, wherein said control unit ~~(100, 110, 120)~~ further includes a determining portion determining interruption of control in which additional information from said processing unit ~~(200, 300)~~ is reflected, when a failure of said processing unit ~~(200, 300)~~ is sensed by said sensing portion.

6. (Currently Amended) The failure sensing device according to claim 1, wherein said control unit ~~(100, 110, 120)~~ is configured by a plurality of control units ~~(100, 110, 120)~~ controlling an operation of a vehicle, and said control unit ~~(100, 110, 120)~~ further includes a sensing portion sensing a failure in said processing unit ~~(200, 300)~~ based on a plurality of sensing results from sensing portions included in said plurality of control units ~~(100, 110, 120)~~.

7. (Currently Amended) The failure sensing device according to claim 6, wherein priorities as to failure sensing are assigned to said plurality of control units ~~(100, 110, 120)~~.

8. (Currently Amended) The failure sensing device according to claim 7, wherein control units ~~(100, 110, 120)~~ with smaller control loads are given higher priorities.

9. (Currently Amended) A failure sensing device of a vehicle control system including a control unit ~~(100, 110, 120)~~ generating a control target based on an operation request for controlling a driving state of a vehicle by manipulating a corresponding actuator using the generated control target, and a processing unit ~~(200, 300)~~ connected to said control unit ~~(100, 110, 120)~~ by a network, for generating and providing to said control unit ~~(100, 110, 120)~~ additional information to be used to modify said operation request or said control target, as necessary, at said control unit ~~(100, 110, 120)~~, wherein

said failure sensing device is provided to said control unit ~~(100, 110, 120)~~ with smaller control load, and includes

an output portion outputting information to said processing unit ~~(200, 300)~~ with greater control load,

a receiving portion receiving a response corresponding to said information from said processing unit ~~(200, 300)~~, and

a sensing portion sensing a failure in said processing unit ~~(200, 300)~~ based on said information and said response, wherein

units in said vehicle control system are hierarchically configured, and

said control unit ~~(100, 110, 120)~~ is arranged hierarchically lower than said processing unit ~~(200, 300)~~.

10. (Currently Amended) A failure sensing device of a vehicle control system including a control unit ~~(100, 110, 120)~~ generating a control target based on an operation request for controlling a driving state of a vehicle by manipulating a corresponding actuator using the generated control target, and a processing unit ~~(200, 300)~~ connected to said control unit ~~(100, 110, 120)~~ by a network, for generating and providing to said control unit ~~(100, 110, 120)~~

~~120~~) additional information to be used to modify said operation request or said control target, as necessary, at said control unit ~~(100, 110, 120)~~, wherein

said failure sensing device is provided to said control unit ~~(100, 110, 120)~~ with smaller control load, and includes

outputting means for outputting information to said processing unit ~~(200, 300)~~ with greater control load,

receiving means for receiving a response corresponding to said information from said processing unit ~~(200, 300)~~, and

sensing means for sensing a failure in said processing unit ~~(200, 300)~~ based on said information and said response.

11. (Currently Amended) The failure sensing device according to claim 10, wherein said information is input data for calculation at said processing unit ~~(200, 300)~~, and said receiving means includes means for receiving as a response a calculation result of said input data substituted into a predetermined calculation formula at said processing unit ~~(200, 300)~~.

12. (Currently Amended) The failure sensing device according to claim 10, wherein said control unit ~~(100, 110, 120)~~ further includes diagnosing means for diagnosing a failure in itself.

13. (Currently Amended) The failure sensing device according to claim 10, wherein said control unit ~~(100, 110, 120)~~ is configured by multiplexed calculating units.

14. (Currently Amended) The failure sensing device according to claim 10, wherein

said control unit ~~(100, 110, 120)~~ further includes means for determining interruption of control in which additional information from said processing unit ~~(200, 300)~~ is reflected, when a failure of said processing unit ~~(200, 300)~~ is sensed by said sensing means.

15. (Currently Amended) The failure sensing device according to claim 10, wherein said control unit ~~(100, 110, 120)~~ is configured by a plurality of control units ~~(100, 110, 120)~~ controlling an operation of a vehicle, and

said control unit ~~(100, 110, 120)~~ further includes means for sensing a failure in said processing unit ~~(200, 300)~~ based on a plurality of sensing results from sensing means included in said plurality of control units ~~(100, 110, 120)~~.

16. (Currently Amended) The failure sensing device according to claim 15, wherein priorities as to failure sensing are assigned to said plurality of control units ~~(100, 110, 120)~~.

17. (Currently Amended) The failure sensing device according to claim 16, wherein control units ~~(100, 110, 120)~~ with smaller control loads are given higher priorities.

18. (Currently Amended) A failure sensing device of a vehicle control system including a control unit ~~(100, 110, 120)~~ generating a control target based on an operation request for controlling a driving state of a vehicle by manipulating a corresponding actuator using the generated control target, and a processing unit ~~(200, 300)~~ connected to said control unit ~~(100, 110, 120)~~ by a network, for generating and providing to said control unit ~~(100, 110, 120)~~ additional information to be used to modify said operation request or said control target, as necessary, at said control unit ~~(100, 110, 120)~~, wherein

said failure sensing device is provided to said control unit ~~(100, 110, 120)~~ with smaller control load, and includes

outputting means for outputting information to said processing unit ~~(200, 300)~~ with greater control load,

receiving means for receiving a response corresponding to said information from said processing unit ~~(200, 300)~~, and

sensing means for sensing a failure in said processing unit ~~(200, 300)~~ based on said information and said response, wherein

units in said vehicle control system are hierarchically configured, and

said control unit ~~(100, 110, 120)~~ is arranged hierarchically lower than said processing unit ~~(200, 300)~~.